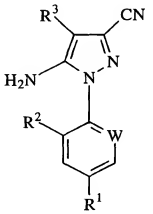
WHAT IS CLAIMED IS:

1. A process for the preparation of a compound having the formula:



(I)

wherein:

W is nitrogen or $-CR^4$;

R^1 is halogen, haloalkyl, haloalkoxy, $R^5S(O)_n-$ or $-SF_5$;

R^2 is hydrogen or halogen;

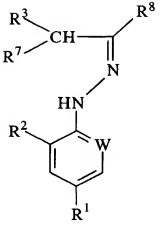
R^3 is hydrogen or $R^6S(O)_m-$;

R^4 is halogen;

each of R^5 and R^6 is alkyl or haloalkyl; and

each of m and n is 0, 1 or 2;

said process comprising reacting a compound having the formula:



(II)

wherein R^1, R^2, R^3 and W are as defined above, R^7 is a leaving group and R^8 is chlorine or bromine, with a cyanide salt.

2. A process according to Claim 1, wherein the cyanide salt is an alkali metal cyanide, an alkaline earth metal cyanide or ammonium cyanide.

3. A process according to Claim 2, wherein the cyanide salt is potassium cyanide or sodium cyanide.

4. A process according to Claim 1, which is conducted in a solvent selected from the group consisting of nitriles, amides, sulfoxides, ethers and alcohols, optionally in the presence of water.

5. A process according to Claim 4, wherein the solvent comprises acetonitrile, N-methylpyrrolidinone, dimethylsulfoxide, tetrahydrofuran or ethanol.

6. A process according to Claim 2, which is conducted in a solvent selected from the group consisting of nitriles, amides, sulfoxides, ethers and alcohols, optionally in the presence of water.

7. A process according to Claim 6, wherein the solvent comprises acetonitrile, N-methylpyrrolidinone, dimethylsulfoxide, tetrahydrofuran or ethanol.

8. A process according to Claim 1, wherein from 2 to 5 molar equivalents of cyanide are employed.

9. A process according to Claim 2, wherein from 2 to 5 molar equivalents of cyanide are employed.

10. A process according to Claim 4, wherein from 2 to 5 molar equivalents of cyanide are employed.

11. A process according to Claim 6, wherein from 2 to 5 molar equivalents of cyanide are employed.

12. A process according to Claim 1, wherein the reaction temperature is from about -20°C to the reflux temperature of the solvent.

13. A process according to Claim 12, wherein the reaction temperature is from about 0°C to about 20°C.

14. A process according to Claim 1, wherein R^7 is chlorine or bromine.

15. A process according to Claim 2, wherein R^7 is chlorine or bromine.

16. A process according to Claim 9, wherein R^7 is chlorine or bromine.

17. A process according to Claim 1, wherein:
R^1 is trifluoromethyl, trifluoromethoxy or $-SF_5$;
W is $-CR^4$;
each of R^2 and R^4 is chlorine or bromine;
R^3 is hydrogen or $R^6S(O)_m-$;
R^6 is optionally halogenated methyl or ethyl; and
each of R^7 and R^8 is chlorine.

18. A process according to Claim 2, wherein:
R^1 is trifluoromethyl, trifluoromethoxy or $-SF_5$;
W is $-CR^4$;
each of R^2 and R^4 is chlorine or bromine;
R^3 is hydrogen or $R^6S(O)_m-$;
R^6 is optionally halogenated methyl or ethyl; and
each of R^7 and R^8 is chlorine.

19. A process according to Claim 4, wherein:
R^1 is trifluoromethyl, trifluoromethoxy or $-SF_5$;
W is $-CR^4$;
each of R^2 and R^4 is chlorine or bromine;
R^3 is hydrogen or $R^6S(O)_m-$;
R^6 is optionally halogenated methyl or ethyl; and
each of R^7 and R^8 is chlorine.

20. A process according to Claim 6, wherein:
R^1 is trifluoromethyl, trifluoromethoxy or $-SF_5$;
W is $-CR^4$;

each of R^2 and R^4 is chlorine or bromine;
R^3 is hydrogen or $R^6S(O)_m$-;
R^6 is optionally halogenated methyl or ethyl; and
each of R^7 and R^8 is chlorine.

21. A process according to Claim 8, wherein:
R^1 is trifluoromethyl, trifluoromethoxy or $-SF_5$;
W is $-CR^4$;
each of R^2 and R^4 is chlorine or bromine;
R^3 is hydrogen or $R^6S(O)_m$-;
R^6 is optionally halogenated methyl or ethyl; and
each of R^7 and R^8 is chlorine.

22. A process according to Claim 17, wherein:
R^1 is trifluoromethyl;
W is $-CR^4$;
each of R^2, R^4, R^7 and R^8 is chlorine; and
R^3 is hydrogen.

23. A process according to Claim 1, wherein the compound of formula (I) is:

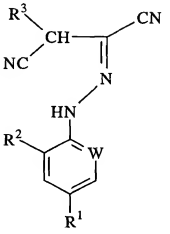
5-amino-3-cyano-1-(2,6-dichloro-4-trifluoromethylphenyl)pyrazole;

5-amino-3-cyano-1-(2,6-dichloro-4-trifluoromethylphenyl)-4-trifluoromethylthiopyrazole;

5-amino-3-cyano-1-(2,6-dichloro-4-trifluoromethylphenyl)-4-trifluoromethylsulfinylpyrazole; or

5-amino-3-cyano-1-(2,6-dichloro-4-trifluoromethylphenyl)-4-ethylsulfinylpyrazole.

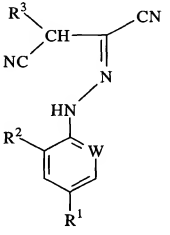
24. A process according to Claim 1, wherein the intermediate having the formula:



(III)

wherein R^1, R^2, R^3 and W are as defined in Claim 1, which is formed in the course of the reaction, cyclizes under the conditions of the reaction to afford the corresponding compound of formula (I).

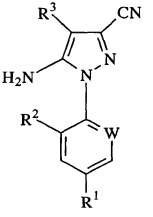
25. A process according to Claim 1, wherein the intermediate having the formula:



(III)

wherein R^1, R^2, R^3 and W are as defined in Claim 1, which is formed in the course of the reaction, is cyclized in the presence of base to afford the corresponding compound of formula (I).

26. A process for the preparation of a compound having the formula:



(I)

wherein:

W is nitrogen;

R^1 is halogen, haloalkyl, haloalkoxy, $R^5S(O)_n$- or -SF_5;

R^2 is hydrogen or halogen;

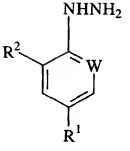
R^3 is hydrogen or $R^6S(O)_m$-;

each of R^5 and R^6 is alkyl or haloalkyl; and

each of m and n is 0, 1 or 2;

said process comprising:

(a) reacting a compound having the formula:

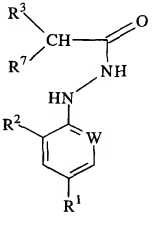


(V)

wherein R^1, R^2 and W are as defined above, with a compound having the formula:

$$R^3R^7CHCOR^9 \qquad (VI)$$

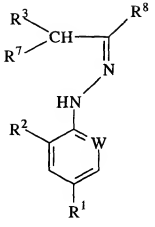
wherein R^3 is as defined above and each of R^7 and R^9 is a leaving group, to afford the corresponding compound having the formula:



(IV)

wherein R^1, R^2, R^3, R^7 and W are as defined above;

(b) reacting the resultant compound of formula (IV) with a chlorinating or brominating agent, to afford the corresponding compound having the formula:



(II)

wherein R^1, R^2, R^3, R^7 and W are as defined above and R^8 is chlorine or bromine; and

(c) reacting the resultant compound of formula (II) with a cyanide salt.

27. A process according to Claim 26, wherein the compound of formula (IV) is reacted in step (b) with a chlorinating agent selected from the group consisting of thionyl chloride, phosphoryl chloride, phosphorus trichloride, phosphorus pentachloride, and a mixture of triphenylphosphine and carbon tetrachloride.

28. A process according to Claim 26, wherein the cyanide salt in step (c) is an alkali metal cyanide, an alkaline earth metal cyanide or ammonium cyanide.

29. A process according to Claim 28, wherein the cyanide salt is potassium cyanide or sodium cyanide.

30. A process according to Claim 26, wherein step (c) is conducted in a solvent selected from the group consisting of nitriles, amides, sulfoxides, ethers and alcohols, optionally in the presence of water.

31. A process according to Claim 30, wherein the solvent comprises acetonitrile, N-methylpyrrolidinone, dimethylsulfoxide, tetrahydrofuran or ethanol.

32. A process according to Claim 26, wherein in step (c) from 2 to 5 molar equivalents of cyanide are employed.

33. A process according to Claim 26, wherein in step (c) the reaction temperature is from about -20°C to the reflux temperature of the solvent.

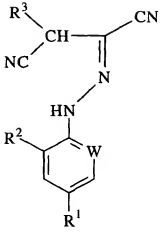
34. A process according to Claim 33, wherein in step (c) the reaction temperature is from about 0°C to about 20°C.

35. A process according to Claim 26, wherein R^7 is chlorine or bromine.

36. A process according to Claim 28, wherein R^7 is chlorine or bromine.

37. A process according to Claim 32, wherein R^7 is chlorine or bromine.

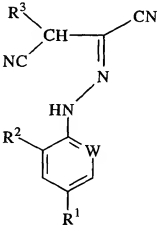
38. A process according to Claim 26, wherein in step (c) the intermediate having the formula:



(III)

wherein R^1, R^2, R^3 and W are as defined in Claim 26, which is formed in the course of the reaction, cyclizes under the conditions of the reaction to afford the corresponding compound of formula (I).

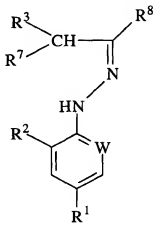
39. A process according to Claim 26, wherein in step (c) the intermediate having the formula:



(III)

wherein R^1, R^2, R^3 and W are as defined in Claim 26, which is formed in the course of the reaction, is cyclized in the presence of base to afford the corresponding compound of formula (I).

40. A compound having the formula:



(II)

wherein:

W is nitrogen or $-CR^4$;

R^1 is halogen, haloalkyl, haloalkoxy, $R^5S(O)_n-$ or $-SF_5$;

R^2 is hydrogen or halogen;

R^3 is hydrogen or $R^6S(O)_m-$;

R^4 is halogen;

each of R^5 and R^6 is alkyl or haloalkyl;

R^7 is a leaving group;

R^8 is chlorine or bromine; and

each of m and n is 0, 1 or 2.

41. A compound according to Claim 40, wherein R^7 is chlorine or bromine.

42. A compound according to Claim 40, wherein:

R^1 is trifluoromethyl, trifluoromethoxy or $-SF_5$;

W is $-CR^4$;

each of R^2 and R^4 is chlorine or bromine;

R^3 is hydrogen or $R^6S(O)_m$-;

R^6 is optionally halogenated methyl or ethyl; and

each of R^7 and R^8 is chlorine.

43. A compound according to Claim 40, wherein:

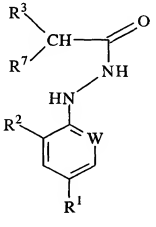
R^1 is trifluoromethyl;

W is $-CR^4$;

each of R^2, R^4, R^7 and R^8 is chlorine; and

R^3 is hydrogen.

44. A compound having the formula:



(IV)

wherein:

W is nitrogen or $-CR^4$;

R^1 is halogen, haloalkyl, haloalkoxy, $R^5S(O)_n$- or $-SF_5$;

R^2 is hydrogen or halogen;

R^3 is hydrogen or $R^6S(O)_m$-;

R^4 is halogen;

each of R^5 and R^6 is alkyl or haloalkyl;

R^7 is a leaving group; and

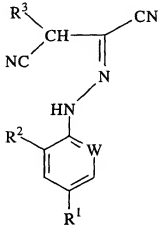
each of m and n is 0, 1 or 2.

45. A compound according to Claim 44, wherein R^7 is chlorine or bromine.

46. A compound according to Claim 44, wherein:
R^1 is trifluoromethyl, trifluoromethoxy or $-SF_5$;
W is $-CR^4$;
each of R^2 and R^4 is chlorine or bromine;
R^3 is hydrogen or $R^6S(O)_m-$;
R^6 is optionally halogenated methyl or ethyl; and
R^7 is chlorine.

47. A compound according to Claim 44, wherein:
R^1 is trifluoromethyl;
W is $-CR^4$;
each of R^2, R^4 and R^7 is chlorine; and
R^3 is hydrogen.

48. A compound having the formula:



(III)

wherein:

W is nitrogen or $-CR^4$;

R^1 is halogen, haloalkyl, haloalkoxy, $R^5S(O)_n-$ or $-SF_5$;

R^2 is hydrogen or halogen;

R^3 is $R^6S(O)_m-$;

R^4 is halogen;

each of R^5 and R^6 is alkyl or haloalkyl;

R^8 is chlorine or bromine; and

each of m and n is 0, 1 or 2.

49. A compound according to Claim 48, wherein:

R^1 is trifluoromethyl, trifluoromethoxy or $-SF_5$;

W is $-CR^4$;

each of R^2 and R^4 is chlorine or bromine;

R^3 is hydrogen or $R^6S(O)_m-$; and

R^6 is optionally halogenated methyl or ethyl.